WASHINGTON
HIGHER
EDUCATION
COORDINATING BOARD

January 2005

Articulation and Student Transfer: Associate Degree Pathways (House Bill 2382)

Executive Summary

House Bill 2382 required the Higher Education Coordinating Board (HECB) to "convene work groups to develop transfer associate degrees that will satisfy lower-division requirements at public four-year institutions of higher education for specific academic majors." These degrees (also called "associate degree pathways") are included in the HECB 2004 Strategic Master Plan as a mechanism for promoting efficient transfer. House Bill 2382 requires that the HECB submit a progress report to the higher education committees of the legislature by January 10, 2005.

Transfer associate degrees prepare students for transfer from a two-year institution to a baccalaureate institution. Transfer associate degrees typically take two years to complete at a community college. Transfer associate degrees currently exist for students who plan to major in liberal arts, business, secondary math and science education, or specific areas of science. House Bill 2382 required that three more degrees be developed in 2004-05 for pre-nursing, engineering, and elementary education. These degrees benefit students by giving them a specific plan to follow and by preparing them early for their intended majors. In addition, they help to prepare students for transfer to any public baccalaureate institution in the state, as well as to any private institution that wishes to participate. Since better student preparation reduces the possibility of students completing credits that will not transfer or count toward their degree, these agreements benefit the state as well.

Faculty from two-year and four-year public and private institutions have been working to reach agreement on the curriculum requirements for each new pathway. The work of the nursing group is near completion; the work of the elementary education and engineering groups is approximately halfway finished.

Once the three new pathways have been completed by the work groups and approved by academic leadership, community colleges will design associate degrees that follow the new pathways and advertise them to students. The new pre-nursing associate degree pathway is expected to be available to students at community colleges as early as fall 2006; the other two associate degree pathways are expected to be available by fall 2007.

The HECB is required to issue progress reports every two years to monitor the progress of these efforts, with the next report due in January 2007.

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Background

The legislature has found that "community and technical colleges play a vital role for students obtaining baccalaureate degrees," serving as an "essential partner" in meeting the demands of students. However, the legislature also found that "current policies and procedures do not provide for efficient transfer of courses, credits, or prerequisites for academic majors" (House Bill 2382, Section 1).

House Bill 2382 (Section 2) directs the Higher Education Coordinating Board to "convene work groups to develop transfer associate degrees that will satisfy lower-division requirements at public four-year institutions of higher education for specific academic majors. The legislation requires the work groups to focus in 2004-05 on developing new associate degrees in nursing, elementary education, and engineering. Section 7 specifies: "Beginning January 10, 2005, the Higher Education Coordinating Board must submit a progress report on the development of transfer associate degrees to the higher education committees of the House of Representatives and the Senate. The first progress report must include measurable benchmark indicators to monitor the effectiveness of the initiatives in improving transfer and baseline data for those indicators before the implementation of the initiatives."

The Council of Presidents (COP), the State Board for Community and Technical Colleges (SBCTC), and the Independent Colleges of Washington (ICW) offered to identify participants for the work groups required by House Bill 2382. Once participants were identified, each work group selected at least two co-chairs from the community and technical college system, the public baccalaureate institutions, and the independent baccalaureate institutions. Each work group also formed a steering group, which included the co-chairs, representative(s) from the private institutions, and agency staff from the HECB, COP, and SBCTC.

The work groups were provided a charge, general timeline, and suggested guidelines to follow from the Joint Access Oversight Group (JAOG). The JAOG is a voluntary group, composed of academic leaders from the two-year and four-year public colleges, as well as staff from the COP, HECB, and SBCTC, with regular participation by representatives of the independent institutions. HECB staff provided additional direction and support.

Each work group is following a similar approach. At the first few meetings, members review the charge and discuss a matrix of all of the course requirements at the different colleges and universities. Allowing each institution to see other institutions' requirements in a matrix facilitates analysis and discussion of next steps. At subsequent meetings and through e-mails and telephone conversations, members discuss course requirements in more detail. They attempt to come to agreement on the courses required for entry to a college major by discussing course content and the competencies or skills that students are expected to be able to demonstrate once the course is completed. Once course requirements have been agreed upon, a summary of those requirements will be reviewed by registrars, other faculty, and, ultimately, academic leadership (the Instruction Commission for the community and technical college system, the Inter-institutional Committee of Academic Officers for the public four-year colleges, and equivalent group(s) at the independent institutions). Following approval by academic leadership, community college leaders will begin developing the new associate degree pathways for students.

Objective

The objective of this work is to provide transfer students with a pathway that will prepare them in the same manner as direct entry[1] students for a specific major at *any* public baccalaureate institution in the state, and for any of the independent institutions that wish to join the agreement.

Wherever possible, the work groups were encouraged to stay within the boundaries of the current Direct Transfer Agreement (DTA) or the current Associate of Science Transfer Degree (AS-T). The DTA and AS-T allow students to transfer to a baccalaureate institution as juniors, with most or all of their lower-division general education requirements fulfilled. All public and many private baccalaureate institutions accept students with a DTA or AS-T "package," eliminating the necessity of evaluating each course on a transcript.

The DTA outlines broad areas in which students must complete credits (e.g., communication skills, quantitative skills, humanities, social sciences, natural sciences, and electives). The AS-T has a similar structure, with more specificity in math and science. The benefit of developing new pathways within the DTA and AS-T lies in the identification of specific courses that will better prepare students for their majors at baccalaureate institutions. For example, a student intending to major in English might choose among a variety of natural science courses, while a student intending to major in nursing would need to take certain chemistry courses as part of his or her natural science requirements.

House Bill 2382 [Section 2(1)] specifies that transfer associate degrees be developed that satisfy lower-division requirements at the *public* baccalaureate institutions. However, it also states that representatives from the independent four-year institutions may be included in the work groups. Representatives from the independent colleges are active participants in all of the work groups.

[1] Students who enter a baccalaureate institution directly from high school.

The legislation does not address capacity issues. Therefore, addressing the lack of enrollment capacity for transfer students was not part of the work group discussions, although it was acknowledged as an important issue impacting transfer in the state.

Finally, the work groups were advised by JAOG members and HECB staff that they were not necessarily limited to a 90-credit associate degree. If more or less than 90 (quarter-based) credits were determined as the best preparation for a student's intended major, then the groups had the authority to recommend an associate degree pathway that would vary from the traditional 90-credit degrees now in place.

Nursing

Meetings

The main work group met on July 6, August 30, and November 4 in 2004. In addition to these meetings, the steering group communicated via conference calls and e-mail, and the baccalaureate co-chair presented an overview of the work group's progress at the fall meeting of the Council of Nursing Education in Washington State (CNEWS). Appendix A contains a list of work group participants.

Issues

One of the first issues identified by the work group related to the project scope. Two pathways for access to a Bachelor of Science in Nursing (BSN) exist for community college graduates: 1) completion of an Associate Degree in Nursing (ADN) with transfer to a Bachelor of Science in Nursing (BSN) designed for already licensed nurses (often referred to as an RN-BSN completion program); and 2) completion of an associate degree and transfer to a BSN that has been designed for those seeking to become licensed nurses at the baccalaureate level (often referred to as basic BSN programs).

The group agreed that the first pathway was working well overall through formal articulation agreements between community college nursing programs and the baccalaureate institutions providing BSN completion programs. The legislative charge seemed related more to accessing the entry-level BSN programs. Therefore, the group decided to address the second pathway intended for students who wish to transfer prior to entering the nursing career ladder. The group decided that the nursing pathway description should be expanded to include health sciences, since the prerequisites are similar. Therefore, the proposed title of the new pathway will be "Pre-Nursing and Health Sciences." Expanding the title in this way provides additional options for students who may not gain admission into a nursing program.

Issues related to curriculum have taken the most time and discussion. In many areas, all of the institutions reached agreement quickly. For example, all of the participating colleges and universities agreed to the same five credits of biology, five credits of nutrition, and 10 credits of anatomy and physiology as partial fulfillment of the 35 credits required for natural sciences.

The work group is still discussing, but is close to resolving, other curriculum issues, including specific requirements for chemistry, psychology, and quantitative reasoning content.

Indicators

Credits to degree will be collected for students who complete a Bachelor of Science in Nursing through the basic BSN program. Three groups will be compared: 1) students who enter baccalaureate institutions directly from high school (direct entry), 2) students who enter baccalaureate institutions with the Associate of Arts (DTA), and 3) students who enter baccalaureate institutions using the new pathway. In addition, data on the number of students completing the new pathway at the community colleges will be collected.

Baseline Data[2]: Graduating class of 2000-01 (Nursing)

Student path to baccalaureate	Total number of credits to degree
Direct Entry (12 graduates)	208
Transfer from a Washington State community/technical college (51 graduates)	220

A total of 63 students graduated in 2000-01 from the University of Washington and Washington State University with a B.S. in nursing. Twelve of these students entered a baccalaureate institution directly from high school and completed an average of 208 college-level credits toward their degrees. The remaining 51 students transferred from a Washington State community college without an RN via the associate degree in nursing and completed, on average, 220 college-level credits toward their bachelor's degrees. On average, transfer students completed 12 more credits toward their degrees than students who entered a baccalaureate institution directly from high school. It is expected that when students enter a baccalaureate institution using the new pathway, this difference will be reduced or eliminated.

It is estimated that the new associate degree pathway will be available at community colleges beginning in fall 2006. Students are expected to complete the new pathway no earlier than spring 2008, and are expected to complete their BSN degree no earlier than spring 2010.

Members of the steering group have nearly completed their work. The work group will hold a fourth, and possibly final, meeting in February 2005. In the meantime, the steering group will work to resolve any outstanding issues.

Elementary Education

Meetings

The main work group met on October 6 and November 22 in 2004 and will meet again on February 11, 2005. The steering group and work group also have communicated through conference calls and e-mail.

[2] Source: Loretta Seppanen, State Board for Community and Technical Colleges, Graduate Administrative Record (GAR) class of 2000-01 database. Data are for graduates whose full transcripts consist only of credits from a community or technical college and/or Washington public baccalaureate institutions. Additional credits from advanced placement and other institutions or sources are not included.

Appendix B lists the work group participants. Many of the work group members participated in a previous group created by the two-year and four-year institutions in 2002-03 to discuss a pathway for elementary education. The current work builds on those earlier efforts.

Issues

Requirements for elementary education teachers are regulated by the state. For example, the Washington Administrative Code (WAC) lists competencies required for teacher candidates. Teachers must be certified and hold endorsements to teach in their specialty areas. Endorsements can be earned through completion of a college program and teachers are required to demonstrate their competencies by passing the Washington Educator Skills Test – Endorsement (WEST-E - Content Test). All teachers also are required to pass the WEST-B (Basic Skills Test).

The work group's challenge is to design a new pathway within the existing Direct Transfer Agreement (DTA) that aligns with the standards listed in the Washington Administrative Code (WAC). The DTA is course-based, while the WAC is based on competencies.

One of the first actions taken by the work group was to develop a matrix listing the current Direct Transfer Agreement requirements in each curriculum area, along with corresponding WAC sections addressing student competencies and lower-division college courses, with course and assessment details. The matrix helped ensure that there would be no gaps between the DTA, the WAC, and the lower-division courses that would be included in the new associate degree pathway.

In most areas, the work group reached quick agreement that a particular course that met the WAC standards would be required by all of the public four-year colleges, and could be offered by all of the public two-year colleges. Separate subgroups were created to engage in more detailed discussions regarding quantitative skills and psychology coursework requirements, design of an introductory course, and assessment of computer literacy. These subgroups are expected to report their progress at the meeting of the main work group scheduled for February 2005.

Indicators

Credits to degree will be collected for students who complete their bachelor's degrees in education with an endorsement in elementary education. Three groups will be compared: 1) students who enter baccalaureate institutions directly from high school, 2) students who enter baccalaureate institutions with the Associate of Arts (DTA), and 3) students who enter baccalaureate institutions using the new pathway. In addition, data on the number of students completing the new pathway at the community colleges will be collected.

Baseline Data[3]: Graduating class of 2000-01 (Elementary Education)

Student path to baccalaureate	Total number of credits to degree
Direct Entry (182 graduates)	227
Transfer from a Washington State community/technical college (333 graduates)	237

A total of 515 students graduated in 2000-01 from Central Washington University, Eastern Washington University, Western Washington University, and Washington State University with bachelor's degrees in education and endorsements in elementary education. Of that total, 182 entered baccalaureate institutions directly from high school and completed an average of 227 college-level credits toward their degree. The remaining 333 students transferred from a Washington State community college and completed, on average, 237 college-level credits toward their degree. On average, transfer students completed 10 more credits toward their degree than students who entered baccalaureate institutions directly from high school. It is expected that, when students enter a baccalaureate institution using the new pathway, this difference will be reduced or eliminated.

It is estimated that the new associate degree pathway will be available at community colleges beginning in fall 2007. Students are expected to complete the new pathway no earlier than spring 2009, and are expected to complete their bachelor's degree no earlier than spring 2011.

Status

Members of the steering group consider the work 50 percent complete. They are confident that they will complete the work by July 2005.

Engineering

Meetings

The main work group met on July 26 and September 17 in 2004 and will meet at least one more time during winter quarter 2005. The steering group also communicated through conference calls and e-mail. Finally, work group co-chairs and staff held a statewide discussion about the new pathways with the Washington Council for Engineering and Related Technical Education (WCERTE) on November 22, 2004.

Appendix B lists the work group participants.

Issues

As with nursing, one of the first issues identified by the engineering work group related to the project scope. Engineering is a broad discipline and one pathway would not fit the requirements

[3] Source: Loretta Seppanen, State Board for Community and Technical Colleges, Graduate Administrative Record (GAR) class of 2000-01 database. Data are for graduates whose full transcripts consist only of credits from a community or technical college and/or Washington public baccalaureate institutions. Additional credits from advanced placement and other institutions or sources are not included.

for all of the sub-disciplines contained within engineering. Therefore, separate pathways will be designed for the following major areas:

- Chemical and bio-engineering
- Electrical and computer engineering
- Aeronautical, civil, industrial, mechanical, and materials science engineering
- Engineering technology

The group will design new pathways for the first three sub-discipline groups by spring 2005 and discuss the fourth group in 2005-06. The new pathways will follow the broad requirements set out in the Associate of Science –Transfer Degree #2, which was designed for students in engineering, computer science, physics, and atmospheric sciences. More specificity within this degree will be developed, so that students can plan for their specific engineering field while attending a community college and know that their credits would be accepted the same way at different institutions.

The subgroups are now discussing matrices listing the courses required by the different institutions within the categories outlined above. Once the matrices have been reviewed, the subgroups will engage in more detailed discussions about curriculum.

Indicators

Credits to degree will be collected for students who complete their bachelor's degree in the disciplines listed above. Three groups will be compared: 1) students who enter baccalaureate institutions directly from high school, 2) students who enter baccalaureate institutions with the Associate of Science-Transfer Degree #2, and 3) students who enter baccalaureate institutions using the new pathways.

Baseline Data[4]:

Chemical and Bio-Engineering: The number of students completing their bachelor's degrees in 2000-01 was too small to report for a baseline.

Electrical and Computer Engineering:

Graduating class of 2000-01 (Electrical and Computer Engineering)

Student path to baccalaureate	Total number of credits to degree
Direct Entry (46 graduates)	217
Transfer from a Washington State community/technical college (89 graduates)	253

[4] Source: Loretta Seppanen, State Board for Community and Technical Colleges, Graduate Administrative Record (GAR) class of 2000-01database. Data are for graduates whose full transcripts consist only of credits from a community or technical college and/or Washington public baccalaureate institutions. Additional credits from advanced placement and other institutions or sources are not included.

A total of 135 students graduated from the University of Washington and Washington State University in 2001 with a bachelor's degree in electrical and computer engineering. Forty-six of these students entered a baccalaureate institution directly from high school and completed an average of 217 college-level credits toward their degree. The remaining 89 students transferred from a Washington State community college with an associate degree and completed, on average, 253 college-level credits toward their baccalaureate degree. On average, transfer students completed 36 more credits toward their degree than students who entered a baccalaureate institution directly from high school. It is expected that when students enter a baccalaureate institution using the new pathway, this difference will be reduced or eliminated.

Aeronautical, Civil, Industrial, and Mechanical Engineering:

Graduating class of 2000-01 (Aeronautical, Civil, Industrial, and Mechanical Engineering)

Student path to baccalaureate	Total number of credits to degree
Direct Entry (83 graduates)	222
Transfer from a Washington State community/technical college (117 graduates)	246

A total of 200 students graduated from the University of Washington and Washington State University in 2001 with a bachelor's degree in aeronautical, civil, industrial, or mechanical engineering. Eighty-three of those students entered a baccalaureate institution directly from high school and completed an average of 222 college-level credits toward their degree. The remaining 117 students transferred from a Washington State community college with an associate degree and completed, on average, 246 college-level credits toward their baccalaureate degree. On average, transfer students completed 24 more credits toward their degree than students who entered a baccalaureate institution directly from high school. It is expected that when students enter a baccalaureate institution using the new pathway, this difference will be reduced or eliminated. In addition, data on the number of students completing the new pathways at the community colleges will be collected.

It is estimated that the new pathways will be available at community colleges beginning in fall 2007. Students are expected to complete the new pathway(s) no earlier than spring 2009, and are expected to complete their bachelor's degrees no earlier than spring 2011.

Status

Members of the steering group consider the work 50 to 60 percent complete. They are confident that they will complete the work by July 2005.

Summary and Next Steps

The nursing work group has made the most progress of the three work groups and has only minor curriculum issues to resolve; the other two groups will need at least two more meetings to complete their discussions. Once each work group has reached agreement and developed associate degree templates listing the course requirements, they will be forwarded to registrars

for implementation planning and review and to academic leadership at the two-year and four-year colleges for approval. Once the templates have been approved by academic leadership, the community colleges will begin designing associate degrees that follow the new pathways and advertising them to students.

The new major-specific associate degree pathways require students to make choices early in their academic career. Students who decide to select a major later can still take advantage of the more generic pathways (e.g., the DTA and AS-T), which provide them with broad preparation for a variety of majors. However, those students who select the more specific pathways will be the best prepared for their majors. While the new pathways do not guarantee admission to a college major or to an institution, they do ensure that a student has received the best preparation possible, which can be a factor in admissions decisions at the baccalaureate institutions.

In its 2004 Strategic Master Plan for Higher Education, the HECB has adopted the following timeline for future work:

- **By June 2005,** new associate degree pathways will be developed for nursing, elementary education, and engineering. HECB staff will collect an inventory of existing associate degree pathways that prepare students for bachelor's degrees and the number of transfer students earning bachelor's degrees, by major. Additional pathways will be identified, primarily based on the volume of transfer students transferring into particular majors.

- **By December 2005,** the HECB will revise its program approval guidelines for four-year degrees to include a requirement that a corresponding associate degree pathway be identified to articulate with each newly proposed major.

- **By June 2006,** three additional high-demand associate degree pathways will be developed.

- **By June 2007,** all four-year degrees that are in high demand by transfer students will be matched to corresponding associate degree pathways.

Currently, HECB staff are working with members of the Joint Access Oversight Group (JAOG) to identify future pathways and to identify whether the current associate degree pathways already available to students (e.g., the DTA) adequately prepare students for their baccalaureate majors. JAOG has supported the major-specific associate degree pathways as part of their overall statement of intent (see www.hecb.wa.gov/research/issues/documents/JointAccessOversightGroup for further details.) Key stakeholders agree that it is important to provide these pathways to students and are committed to working together to provide students with the best preparation possible for their baccalaureate majors.

Appendix A

Nursing Work Group Participants

Co-Chairs:	Stu Barger, Everett Community College Mary Baroni, University of Washington, Bothell
Staff:	Cindy Morana, Council of Presidents Nina Oman, Higher Education Coordinating Board Violet Boyer, Independent Colleges of Washington Pat Ward, State Board for Community and Technical Colleges
Community and Technical Colleges:	Maurice McKinnon, Bellevue Sharon Buck, Cascadia Nola Ormrod, Centralia Geary Greenleaf, Lower Columbia Rick Rausch, Clark Stu Barger, Everett Julie Short, Green River Marca Davies, Peninsula Heather Stephen-Selby, Renton Keith Ries, Spokane Gary Blevins, Spokane Falls Kathy Ashworth, Yakima Valley Rhonda Taylor, Yakima Valley
Baccalaureate Institutions:	Peggy Peterson, Eastern Washington University and InterCollegiate Nursing Education (ICNE) Audrey Cox, Pacific Lutheran University Ruth Adams, Seattle Pacific University Emily Hitchens, Seattle Pacific University Maureen Niland, Seattle University Mary Baroni, University of Washington, Bothell Susan Woods, University of Washington, Seattle Marjorie Dobratz, University of Washington, Tacoma Carolyn Denny, Walla Walla College Dorothy Detlor, Washington State University Anne Hirsch, Washington State University and InterCollegiate Nursing Education (ICNE)
Other:	Madeleine Thompson, Workforce Training and Education Coordinating Board

Appendix B

Elementary Education Work Group Participants

Co-Chairs:	Valerie Appleton, Eastern Washington University Greg Brazell, Pierce College Ruth Adams, Seattle Pacific University
Staff:	Cindy Morana, Council of Presidents Nina Oman, Higher Education Coordinating Board Violet Boyer, Independent Colleges of Washington Tina Bloomer, State Board for Community and Technical Colleges
Community and Technical Colleges:	Margaret Turcott, Bellevue Mary Pack, Centralia Judy Cox, Columbia Basin Dale Hensley, Everett Steve Kinholt, Green River Leslie Heizer, Green River Alice Madsen, Highline Kathy Oberg, Highline Joan Graham, Highline Ann Williamson, Lower Columbia Mary Garguile, Olympic Vidya Thirumurthy, Olympic Barbara Clampett, Peninsula Greg Brazell, Pierce Judy DeJardin, Pierce Mary Kay Brown, Pierce Fort Steilacoom Lisa Saunders, Seattle Central Marilyn Chu, Skagit Valley Ron Averill, South Puget Sound Christine Moon, South Puget Sound Jim Minkler, Spokane Falls Judy Noel, Spokane Falls Loretta Seppanen, State Board for Community and Technical Colleges Mary Skinner, Tacoma Celia Hall-Thur, Wenatchee Valley Sally Holloway, Whatcom Richard Fulton, Whatcom Glenda Orgill, Yakima Valley Patti Koluda, Yakima Valley

Appendix B
(continued)

Elementary Education Work Group Participants

Baccalaureate Institutions:	Rebecca Bowers, Central Washington University Carol Meller, Central Washington University Valerie Appleton, Eastern Washington University Shannon Carr, Eastern Washington University Betsy Clewett, Eastern Washington University Shannon Dineen Setzer, Eastern Washington University Gayle McFarland, Eastern Washington University Ann Wolf, Gonzaga University Jim Borst, Heritage University Karen Garrison, Heritage University Paula Leitz, Pacific Lutheran University Joyce Westgard, St. Martin's College Carolyn Denny, Walla Walla College Randy Michaels, Whitworth College Linda Chaplin, Washington State University Ed Helmstetter, Washington State University Judy Nichols Mitchell, Washington State University Dana Edwards, Western Washington University Sheila Fox, Western Washington University Jeanne Gaffney, Western Washington University Mike Henniger, Western Washington University Stephanie Salzman, Western Washington University Lise Sellier, Western Washington University

Appendix C

Engineering Work Group Participants

Co-Chairs:	Jeff McCauley, Green River Community College Bob Olsen, Washington State University
Staff:	Cindy Morana, Council of Presidents Nina Oman, Higher Education Coordinating Board Violet Boyer, Independent Colleges of Washington Nancy Verheyden, State Board for Community and Technical Colleges
Community and Technical Colleges:	Chris Byrne, Cascadia Eric Davishahl, Edmonds Keith Clay, Green River Jeff McCauley, Green River Bob Maplestone, Highline Patricia Cheadle, North Seattle Dennis Schaffer, North Seattle Larry Smith, Peninsula James Bellotty, Spokane Falls
Baccalaureate Institutions:	Walt Kaminski, Central Washington University Don Richter, Eastern Washington University Paul Nowak, Gonzaga University James Brink, Pacific Lutheran University Mara Rempe, Seattle University Anthony De Sam Lazaro, St. Martin's College Chen-Ching Liu, University of Washington Larry Aamodt, Walla Walla College Jon Cole, Walla Walla College Carolyn Denney, Walla Walla College Bob Olsen, Washington State University Steve Dillman, Western Washington University